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Notice of Allowability	Application No.	Applicant(s)	
	10/037,982	SUN ET AL.	
	Examiner	Art Unit	
	Jay P. Patel	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to remarks/claims filed 3/5/2007.
2. ☒ The allowed claim(s) is/are 37-53 (npw renumbered 1-17).
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|--|
| <ol style="list-style-type: none"> 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | <ol style="list-style-type: none"> 5. <input type="checkbox"/> Notice of Informal Patent Application 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance 9. <input checked="" type="checkbox"/> Other _____ |
|--|--|

DETAILED ACTION

1. This office action is in response to the terminal disclaimer/remarks/claims filed 03/05/2007.
2. Claims 31-57 (now renumbered 1-17) are pending.
3. Claims 31-57 are allowed.

EXAMINER'S AMENDMENT

4. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Georganna Grunebach on 03/21/2007.

The application has been amended as follows:

In the claims: Claims 37 and 44 have been amended as shown in the attached three sheets.

Reasons for Allowance

5. The following is an examiner's statement of reasons for allowance:
6. In regards to claims 37 and 44, the cited prior art fails to disclose either individually or in combination partitioning a set of orthogonal codes in to a first and second subsets and encoding a group of first packets using the first subset and encoding a group of second packets using the second subset.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jay P. Patel whose telephone number is (571) 272-3086. The examiner can normally be reached on M-F 9:00 am - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on (571) 272-3088. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

jpp 3/21/07

Jay P. Patel
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Art Unit 2616


HASSAN KIZOU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600

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Patent
Attorney Docket No.: PD-970358A

[REDACTED]

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1 – 36. (Canceled)

37. (Currently Amended) A method for processing data for transmission comprising:
partitioning a set of orthogonal codes into a first subset and a second subset;
partitioning a first group of data bits into first packets, wherein the first group of data bits are encoded by assigning the first packets to a corresponding members of the first subset; and
partitioning a second group of data bits into second packets, wherein the second group of data bits are encoded by assigning the second packets to a corresponding members of the second subset,
wherein the encoded data bits are transmitted over a communication system.

38. (Currently Amended) A method as defined in claim 37, wherein the ~~encoded data bits are transmitted over a~~ communication system that includes a Code Division Multiple Access (CDMA) communication system.

39. (Previously Presented) A method as defined in claim 37, wherein the first group of data bits represents an audio signal, a video signal, or a data signal.

40. (Previously Presented) A method as defined in claim 37, wherein the second group of data bits represents an audio signal, a video signal, or a data signal.

41. (Previously Presented) A method as defined in claim 37, wherein the first group of data bits is associated with a lower power level than the second group of data bits and the number of members in the first subset is higher than the number of members in the second subset.

42. (Previously Presented) A method as defined in claim 37, wherein the first group of data bits is associated with a higher data rate than the second group of data bits and the number of members in the

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~~_____~~
first subset is higher than the number of members in the second subset.

43. (Previously Presented) A method as defined in claim 37, wherein the first group of data bits is associated with a lower error rate than the second group of data bits and the number of members in the first subset is higher than the number of members in the second subset.

44. (Currently Amended) An apparatus for processing a signal, the apparatus comprising:
a signal partitioner for partitioning data bits corresponding to the signal into a first group of packets and a second group of packets having a number of members; and
a code partitioner for partitioning a set of orthogonal codes into a first subset and a second subset and for assigning a subset of orthogonal codes to the packets the first subset to the first group of packets and the second subset to the second group of packets, each of the subset subsets including at least three codes,
wherein an encoded signal is output based on the assignment.

45. (Currently Amended) An apparatus as defined in claim 44, further comprising:
an encoder configured to map the packets to the subsets of the orthogonal codes to output an the encoded signal; and
a transmitter for transmitting the encoded signal.

46. (Previously Presented) An apparatus as defined in claim 44, wherein the signal represents either an audio signal, a video signal, or a data signal.

47. (Previously Presented) An apparatus as defined in claim 44, wherein the encoded signal is transmitted over a communication system that includes a Code Division Multiple Access (CDMA) communication system.

48. (Previously Presented) An apparatus as defined in claim 44, wherein the signal partitioner comprises software performed by a microprocessor.

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49. (Previously Presented) An apparatus as defined in claim 44, wherein the signal partitioner comprises an integrated circuit.

50. (Previously Presented) An apparatus as defined in claim 44, wherein the code partitioner comprises software performed by a microprocessor.

51. (Previously Presented) An apparatus as defined in claim 44, wherein the code partitioner comprises an integrated circuit.

52. (Previously Presented) An apparatus as defined in claim 45, wherein the encoder comprises software performed by a microprocessor.

53. (Previously Presented) An apparatus as defined in claim 45, wherein the encoder comprises an integrated circuit.